

The Cover Types of Lower Magurrewock Marsh

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INTRODUCTION

Lower Magurrewock marsh lies in the northern portion of the Baring unit of Moosehorn National Wildlife Refuge, in the town of Calais. It is bordered on the northeast by an earthen dike which separates it from Magurrewock stream proper, and on the northwest and west by the Maine Central Railroad tracks. Beyond the tracks is the St. Croix River and the Lower Barn Meadow marsh. On the south and southeast side of the marsh is U.S. route #1 and an open field bordering the highway. The main supply of water into Lower Magurrewock is through a culvert from Lower Barn Meadow, a culvert running from upper Magurrewock under the highway into the marsh, and an intermittent brook which crosses under the highway and drains across the open field.

OBJECTIVE

The primary purpose of this vegetative survey is to conduct a search to determine the location and species of plants within Lower Magurrewock. This study is to serve as a basis in future studies on the effect of water level changes and other management practices on the vegetation of the marsh.

HISTORY

The Lower Magurrewock marsh was probably formed by the receding waters of the St. Croix River. It is now separated from the river by the railroad tracks. The area was flooded, by the installation of an earthen dike, for ~~use~~ by migratory birds. The construction of this dike was started in December of 1956 and completed in the spring of 1957.

On the southwest side of the marsh are three inlet culverts and a gravel overflow area is located on the dike. The funds used for this project were from a budget specifically allotted for the building of upper and lower Magurrewock dikes. Other vegetative surveys of this area have been done in 1957 and 1975.

PROCEDURE

The vegetative survey of Lower Magurrewack Marsh done in 1976 was developed by laying a 2600 ft. baseline from the Lower Magurrewack dike along U.S. Rt. 1 to the railroad bed. A Jacob staff and compass was used in measuring the baseline. A bearing of 35° W of S was set on the compass.

Transects were marked at 200 ft. intervals along the baseline using flagged stakes. Plant transects were made from the baseline to the railroad bed at the northwest side of the marsh. A hand compass was used to set off bearings of 30° W of N at the transect lines.

At 200 ft. intervals along the plant transects, mil-acre $(6.6')^2$ plots were sampled as to the dominant plant types. A cover type map was drawn from this data.

Cover Types of Lower Magurrewock Marsh

Three major cover types can be found in Lower Magurrewock Marsh. An Equisetum-Carex mixture is found along the eastern border of the marsh. Other plants found within this cover type are Menyanthes trifolium and Myrica ~~gale~~ gale . A sedge (Carex lasiocarpa)-bog mat is present in much of the middle of the marsh. Other species present in this cover type are Vaccinium macrocarpon, Sphagnum sp., Dulichium arundinaceum and Eriophorum virginicum. The other major cover type extends across the western side of the marsh from the dike to the southern end of the marsh. This cover type is also a sedge (Carex rostrata)-bog mat. These three cover types account for 75% of the marsh.

The fourth largest cover type is a shrub-bog mat. Species present in this cover type are Spirea sp., Salix sp. and M. gale.

PLANTASPECIES LIST

<u>FAMILY NAME</u>	<u>COMMON NAME</u>	<u>SPECIES</u>
Alismaceae	Broadleaf arrowhead	Sagittaria latifolia
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Araceae	Sweet Flag	Acorus calamus
Betulaceae	Speckled Alder	Alnus rugosa
Compositae	Yarrow	Achillea Millefolium
"	Bull Thistle	Cirsium vulgare
"	Joe-Pye Weed	Eupatorium maculatum
"	King-devil	Hieracium pratense
"	Black-eyed Susan	Rudbeckia hirta
"	Goldenrod	Solidagecanadensis
"	Common Sow-thistle	Sonchus Oleraceus
Cyperaceae	Sedge	Carex sp.
"	Three-way Sedge	Dulichium arundinaceum
"	Great Bulrush	Scirpus validus
Equisetaceae	Horsetail	Equisetum sp.
Ericaceae	Cranberry	Vaccinium macrocarpon
Fabaceae	Yellow Sweet Clover	Melilotus officinalis
"	Rabbit-foot Clover	Trifolium avrense
"	Red Clover	Trifolium pratense
"	Purple Vetch	Vicia dasycarpa
Gramineae	Rattlesnake Grass	Glyceria canadensis
Hypericaceae	Marsh St. John's-wort	Hypericum virginicum
Juncaceae	Rush	Juncus sp.
Labiatae	Self-heal	Prunella laciniata

PLANT SPECIES LIST CONT.

<u>FAMILY NAME</u>	<u>COMMON NAME</u>	<u>SPECIES</u>
Utriculariaceae	Common Bladderwort	Utricularia vulgaris
Myricaceae	Sweet Gale	Myrica Gale
Polygonaceae	Swamp smart-weed	Polygonum coccineum
"	Bindweed	Polygonum cilinade
Primulaceae	Yellow Loosestrife	Lysimachia terrestris
Rosaceae	Meadow-sweet	Spiraea latifolia
"	Hardhack	Spiraea tomentosa
Rubiaceae	Buttonbush	Cephalanthus occidentalis
"	Bdstraw	Galium obtusum
Salicaceae	Willow	Salix sp.
Senecio	Hop Clovers	Trifolium procumbers
Sparganiaceae	American Bur-reed	Sparganium americanum
"	Bur-reedd	Sparganium chlorocarpum
Typhaceae	Cat-tail	Typha latifolia
Umbelliferae	Leavenworth Eryngo	Eryngium leavenworth
"	Water parsnip	Sium suave